Using the New Comm 83 to Determine Proper Septic Tank Size.

The present code bases the required size of a septic tank on either liquid capacities listed in Table 12 plus 750 gallons for public facilities or the number of bedrooms for 1- and 2-family residences. The new code relies on product approval to determine the amount and type of wastewater that a septic tank can treat. The amount of wastewater will be equal to the maximum design wastewater flow for which the tank may receive. By assigning maximum daily flow rates to septic tanks we will then have consistency in how you choose the proper size septic tank or aerated treatment tank. Both septic tanks and aerated tanks will be based on their maximum daily flow rate.

The assigned maximum daily flow rate for septic tanks will be based on:

1. The tank's ability to treat the design flow that the tank will receive from residential domestic wastewater or other wastewater that has typical average value of $BOD_5 \leq 392$ mg/L, SS ≤ 436 mg/L, and Fats, Oils and Grease ≤ 70 mg/L; and
2. The tank's ability to retain scum and sludge that accumulates in the tank over a three-year period.

By using the Wisconsin Plumbing Product Register, starting this July, you will be able to determine which size tank is required by comparing the design wastewater flow to the rated gallon per day flow of the tank, which will be listed after the model number of the tank. The following is an example of some of the information you will find listed in the model number column of the WPPR.

Model Number(s)
1000 (GPD 504, L.L. 47.0", 22.4 GAL/IN., 84" MAX. DEPTH OF BURY)

GPD means the maximum gallons per day flow through the tank.
L.L. means the distance from the bottom of the tank to the liquid level in the tank.
GAL/IN. mean the average number of gallons per one-inch depth of the tank.
MAX. DEPTH OF BURY means the maximum amount of soil cover over the tank cover for a typical tank produced by the manufacturer.

Does all of this mean that tank sizing is changing? The answer is yes. Does it mean the change will be drastic? The answer is no. To compare the present with the new, let's look at the following table. The new code sizing is based on a three-year service interval.

# of Bedrooms (design wastewater flow)	Minimum volume of Septic Tank based on present code	Minimum volume of Septic Tank based on new code
1 (150 gpd)	750	313
2 (300 gpd)	750	626
3 (450 gpd)	975	940
4 (600 gpd)	1,200	1,253
5 (750 gpd)	1,425	1,566
6 (900 gpd)	1,650	1,877
7 (1050 gpd)	1,875	2,192
8 (1200 gpd)	2,100	2,505

If you have any questions, please call Dan Jensen @ (608) 267-5265 or Mike Beckwith @ (608) 266-6742.